Invitation for Comments on the "Short List' Candidates for the Panel on Suspended and Bedded Sediments EPA Science Advisory Board (SAB)

September 4, 2003

The EPA Science Advisory Board (SAB) announced in 68 FR 44758-44760, July 30, 2003, that its Ecological Processes and Effects Committee (EPEC) was forming a Panel on Suspended and Bedded Sediments to provide a consultation to EPA on the Agency's development of a strategy to develop water-quality criteria for suspended and bedded sediment. The Board requested nominations for consultant panel members to provide additional expertise to EPEC. Background on the project and details on panel nomination process appear in the above referenced Federal Register notice and are also available at the SAB website (www.epa.gov/sab).

The Science Advisory Board Staff Office has reviewed the nominations for the Panel, and has identified a list of nominees to a "Short List" of 3 candidates based on the qualifications and interest of the nominees. Panel Membership will consist of current members of EPEC supplemented by one or more of the "Short List" candidates. Brief biosketches of all of the potential panel members are listed below for comment. We invite comments from the public on these candidates. We welcome information, analysis or documentation that the Board should consider in evaluating the "Short List" remaining candidates.

The SAB Staff Office Director, in consultation with SAB leadership, as appropriate, makes the final decision about who will serve on the panel in the "Panel Selection" phase. In that phase, SAB Staff completes its review of information regarding conflict of interest, possible appearance of lack of impartiality, and appropriate balance and breadth needed to address the charge. They review all the information provided by the candidates, along with any information that the public may provide in response to the posting of information about the prospective panel on the SAB website during the "Short List Phase," and information on the background of each candidate independently gathered by SAB Staff.

Please provide any advice, observations or comments you might think would be helpful in selecting the final candidates no later than September 24, 2003. Please make your comments to the attention of Dr. L. Joseph Bachman, Designated Federal Officer via e-mail (bachman.joseph@epa.gov), which is the preferred mode of receipt, or via phone at 202-564-3968. We intend to make final selections and will post the final roster for the SABS by September 24, 2003.

"Short List" Candidates

Charles Rabeni

US Geological Survey (USGS)

Charles Rabeni holds a Ph.D. in zoology from the University of Maine. He is Leader of the Missouri Cooperative Fish and Wildlife Research Unit, and Professor in the Department of Fisheries and Wildlife, University of Missouri. His research addresses questions useful to the conservation or restoration of the biological integrity of streams to enhance their recreational and ecological benefits. His focus is on invertebrates and fishes as endpoints and integrators of ecological conditions. His interest is in delineating those key environmental factors influencing the biota - such as siltation, dissolved oxygen, and extreme temperatures - and to design cost effective mitigation strategies. One current effort is a series of projects aimed at producing biologically sound sediment criteria for Missouri streams. Dr. Rabeni has published over 90 peer-reviewed journal articles, book chapters, and book editorships. He has served in numerous capacities with the North American Benthological Society, including as President in 1992. For the American Fisheries Society, he served in numerous capacities including President of the Missouri Chapter and for two years as Associate Editor for the Transactions of the American Fisheries Society. Dr. Rabeni has served on numerous panels and board, including: assisting the National Park Service by serving on expert panels and task forces to develop long-term monitoring protocols for their Prairie Cluster Park network, and their Heartland Park network; serving on an expert panel for the USGS's Grand Canyon Monitoring and Research Center to evaluate the existing biological research and monitoring program for the Colorado River; assisting the national office of the Nature Conservancy in their project for the conservation of aquatic species and ecosystems in the Central Tallgrass Prairie Region; as a member of an interagency team advising the Mark Twain National Forest (USFS) on research necessary to evaluate cumulative effects of timber harvest on aquatic fauna; serving on a joint agency (MDC, MDNR, NRCS) work group evaluating the ecological consequences of proposed NRCS PL-566 projects; serving as the scientific advisor on the Missouri Aquaculture Task Force to review relations between private aquaculture industry and the Missouri Department of Conservation; serving on the Liaison Committee of the WRD/USGS National Water Quality Assessment Program-Ozark Region. Dr. Rabeni's current research funding is from the US Forest Service, Missouri Department of Conservation, National Park Service, and the Missouri Department of Natural Resources.

Timothy Thompson

The RETEC Group

Timothy Thompson holds an M.S. Degree in Ocean Sciences from the University of British Columbia, and was a Monbusho Fellow, at the University of Nagasaki and Tokyo Fisheries University, Japan. He has 18 years of experience in characterization and management of sediments. National experience in sediments comes from his leadership roles as the project manager for the Remedial Investigation and Feasibility Study for the Lower Fox River/Green Bay PCB CERCLA Site in Wisconsin, as the project manager for a for a large sediment RCRA Facilities Investigation and Corrective Measures Study at a playa lake and on the North Platte River, and as a peer reviewer on the Hudson River PCB Superfund site. Past experience includes developing sediment and water quality monitoring programs for assessing sediment alternatives for a creosote-contaminated site in Washington, developing a long-term monitoring plan for the Fox River, development and application of sediment transport models to environmental decision-making. His experience in sediments also includes habitat evaluations and integration of field data with spatial modeling tools, spatial characterization and statistical analysis of bedded sediment data, bedded sediment characterization, water quality monitoring, and ecological risk assessment. Current and recent clients include the Wisconsin Department of Natural Resources, the Burlington Northern Railways, and Shell Oil Company.

Brian P. Bledsoe

Colorado State University

Brian Bledsoe has over 15 years experience as an engineer and environmental scientist in the private and public sectors. Dr. Bledsoe is a registered Professional Engineer and has authored numerous publications related to stream and watershed processes, rehabilitation and water quality. Dr. Bledsoe received a B.S. in mechanical engineering from the Georgia Institute of Technology in 1987 and subsequently worked in engineering consulting as a project engineer and surveyor on land development and transportation projects. While completing an interdisciplinary M.S. degree in restoration ecology and hydrology at North Carolina State University, he conducted research on the hydrology, hydraulics, and ecology of wetlands and streams in NC, TN, and KY to determine design criteria for stream and wetland restoration projects in the southeastern US. Dr. Bledsoe joined the North Carolina Department of Environment and Natural Resources in 1993 to lead a statewide watershed analysis project to develop and implement a geographic information system combined with hydrologic and hydraulic models for targeting wetland / riparian area restoration strategies to address water quality problems. He also served as the state-level liaison between several environmental agencies and FHWA / NCDOT in wetland and stream impact avoidance, long term mitigation planning, and development of site-specific mitigation plans for USACE §404 permits associated with

transportation projects. He eventually became Non-point Source Program (NPS) Coordinator and served as the State's lead engineer in the development, implementation, and retrofitting of best management practices and ecosystem rehabilitation measures designed to restore water quality to NPS impaired water bodies. He also prepared annual federal NPS grant applications and administered contractual agreements under §319 of the Clean Water Act.

Dr. Bledsoe received his Ph.D. in Civil Engineering from Colorado State University (CSU) in 1999 with an emphasis in environmental river mechanics. His doctoral dissertation examined the effects of watershed urbanization on stream stability, erosion, and physical habitat. Dr. Bledsoe is currently an Assistant Professor in the Department of Civil Engineering at CSU. Dr. Bledsoe's research and teaching interests are focused on the interface between engineering and ecology with particular emphasis on stream and watershed processes and multi-scale linkages between land use, hydrology, sedimentation processes, channel stability and water quality. Current research projects are funded by the US Environmental Protection Agency, US Department of Agriculture, US Army Corps of Engineers, and the Eagle River Watershed Council. Past and current research topics include:

- Predicting and mitigating the impacts of land use changes on water quality, stream physical processes, and biotic communities through improved stormwater management techniques;
- Fate and transport of sediment and diffuse pollution in mixed land use watersheds; and
- Development of stream, river, wetland and watershed restoration practices that are effective and ecologically based.
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His teaching responsibilities include CE 413 "Environmental River Mechanics" and CE 440 "Nonpoint Source Pollution." Dr. Bledsoe is an active member of the American Geophysical Union, American Society of Engineers, American Water Resources Association, and the North American Benthological Society. He has also served as a peer-review panelist for the USEPA STAR Grant and Environmental Monitoring and Assessment Programs.

Current EPEC Members:

Gregory Biddinger

Exxon Mobil Refining and Supply Company

Gregory Biddinger is an Environmental Sciences Advisor with ExxonMobil Refining & Supply Company. In his current position he is responsible for science and regulatory issues related to aquatic environments and science policy related to the assessment and management of risk. Additionally, he participates in strategic environmental business planning processes, the creation of international standards on environmental management and providing leadership and technical support to business lines on wildlife conservation initiatives. In addition to his work on the USEPA SAB he has been active in numerous expert panels and peer reviews for USEPA, OECD and SETAC. His many other professional activities have included chairmanships with the American Society for Testing and Materials, American Chemistry Council and ISO technical committees. Dr. Biddinger was the founding chair of SETAC's Ecological Risk Assessment Advisory Group (1992-2002). He publications include the area of aquatic toxicology on inorganic Arsenicals, Phthalate Esters, chemical dispersants, and the use of microcosms in estimation of tropic transfer of contaminants. Dr. Biddinger has also published in and edited proceedings on ecological risk assessment and risk management, including such topics as the ecological risks of contaminated sediments, decision support systems, sustainable environmental management and integrated environmental decision-making. His current technical and policy focus is improving the utility of environmental science to make effective and sustainable environmental management decisions. He reports no other sources of funding.

Virginia Dale

Oak Ridge National Laboratory

Virginia Dale is a landscape ecologist at Oak Ridge National Laboratory and adjunct faculty member in the Department of Ecology and Evolutionary Biology at the University of Tennessee. Dr. Virginia H. Dale's primary research interests are in environmental decision-making, forest succession, land-use change, landscape ecology, and ecological modeling. She has worked on developing tools for land management, vegetation recovery following the eruption of Mount St. Helens; forest development subsequent to insect outbreaks, fires, windthrows, and clear-cutting; effects of air pollution and climate change on forests; tropical deforestation in southeast Asia and the Brazilian Amazon; and integrating socioeconomic and ecological models of land-use change. Dr. Dale serves on the Science Advisory Board for the Grand Canyon Monitoring and Research Center, the Committee on Ecological Effects of Road Density of the National Academy of Sciences, and the US Scientific Committee for Problems of the Environment. She is also a member of the Department of Defense's Strategic

Environmental Research and Development Program's Ecosystem Management Project. Dr. Dale has served on the National Academy of Sciences Ecosystems Panel, the "Committee of Scientists" appointed by the Secretary of Agriculture, and the Ecosystems Panel that reviews proposals submitted to the National Science Foundation (NSF). She was Chair of the US Regional Association of the International Association for landscape and has been on the Governing Board of the Ecological Society of America. She is currently on the editorial board for the journals Ecological Economics, Ecological Indicators, and Landscape Ecology. She is also the Editor-in-Chief of Environmental Management. Dr. Dale has served on various committees of the SAB, including approximately 5years as a member of EPEC and several years on the RSAC. She received her Ph.D. from the University of Washington in mathematical ecology. Funding is derived from the U.S. Department of Defense.

Ivan J. Fernandez

University of Maine

Ivan Fernandez is a professor and forest soils scientist at the University of Maine, Orono. He chairs the Department of Plant, Soil, and Environmental Sciences. His expertise is in nutrient and metal cycling in forested ecosystems, particularly in soil biogeochemical responses to ecosystem disturbance. He publishes regularly in professional journals on a multi-media range of subjects pertaining to forest ecology including soil biogeochemistry, fire ecology, nutrient cycling in soil and water, watershed processes and soil microbial ecology. He has also published numerous technical reports, book chapters, and a book. He is a member of numerous professional organizations such as the Society of American Foresters, Soil Science Society of America, National Association of Environmental Professionals and the Soil and Water Conservation Society. He serves as a member of the national Council of Soil Science Examiners, the Maine Board of Certification for Professional Geologists and Soil Scientists, and is responsible for oversight of the long-term whole ecosystem research program at the Bear Brook Watershed in Maine. His research interests are in atmospheric deposition and climate change effects on forested ecosystems and watershed processes, as well as the ecological impact of residuals utilization in forests. Current research projects include studies of long-term watershed acidification, base cation depletion, nitrogen saturation, municipal residuals utilization in forests, and the effects of fire and climate on mercury and nitrogen dynamics. His advanced degrees are in soil chemistry and forest resources from the University of Maine. Funding sources include support from the U.S. Department of Agriculture; U.S. National Science Foundation; U.S. Environmental Protection Agency; U.S. National Park Service; Soil Preparations, Inc. and International Paper, Inc.

Cynthia Gilmour

The Academy of Natural Sciences

Cindy Gilmour, is Curator of the Academy of Natural Sciences, Estuarine Research Center in St. Leonard, MD. Dr. Gilmour has expertise in Mercury biogeochemistry: mechanisms and control of microbial mercury methylation from the cellular to ecosystem level; Sulfate-reducing bacteria and sulfur biogeochemistry in aquatic sediments; Estuarine and lacustrine microbial ecology; and response to stressors. Dr. Gilmour is extensively published, active in numerous professional associations including the American Association for the Advancement of Science, American Chemical Society (Geochemistry and Environmental Chemistry Divisions), American Society for Microbiology (Microbial Ecology), and American Society of Limnology and Oceanography. In addition to the SAB, Dr. Gilmour has been an active participant in numerous advisory capacities including NSF Environmental Geochemistry and Biogeochemistry Review Panel, the States of Florida and Maryland, and the USGS. She received her Ph.D. from the University of Maryland in Marine, Estuarine and Environmental Sciences. Dr. Gilmour reports sources of funding from the EPA/STAR program, Florida Department of Environmental Protection, and the CALFED Bay Delta Program (federal and state agencies around San Francisco Bay).

Charles Hawkins

Utah State University

Charles P. Hawkins is a Professor in the Department of Aquatic Watershed, and Earth Resource, in the College of Natural Resources at Utah State University. Dr. Hawkins research interests include conservation, management, and restoration of stream and riparian ecosystems; sampling designs and statistical methods applicable to ecological research and biomonitoring; predictive modeling of community composition; the use of aquatic invertebrates to assess and monitor stream, lake, and wetland ecological integrity; and the cumulative effects of watershed alteration on the physical, chemical, and biotic condition of aquatic and riparian ecosystems. He has published extensively on topics in the development and evaluation of predictive models and bioindicatorsfor measuring the biological integrity of streams. Dr. Hawkins is active with the Ecological Society of America, and past chair of the ESA Aquatic Ecology Section. He has received many grants from the EPA and US Forest Service to study the behavior and performance of different methods of biological assessment for streams. Recent contributions to expert panels include as an invited participant by USEPA for Establishing Reference Conditions for Streams and Rivers in the Western United States in 2001; the Pellston Workshop on Ecological Assessment of Aquatic Resources: Application, Implementation, and Communication in 2000; and as an Invited participant to the US EPA sponsored workshop on Predicting the Effects of Climate Change on Aquatic Ecosystems of the Great Basin and Rocky Mountains in 2000. Dr. Hawkins earned his Ph.D. in Entomology from Oregon State University in 1982. Grant support is reported from two EPA/STAR grants; a cooperative agreement funded by the EPA Office of Science and Technology, and

another by Region 8 EPA; and three Cooperative Agreements funded by the USDA Forest Service.

Lawrence L. Master

NatureServe

Lawrence Master is Chief Zoologist for NatureServe, a non-governmental organization dedicated to providing the scientific information needed to conserve biological diversity. Previous to that he was the Chief Zoologist for The Nature Conservancy from 1988 to 2000, and from 1982 to 1996 was also Coordinator/ Zoologist for the Conservancy's Eastern Heritage Task Force. His current research interests include species status assessment and conservation site selection methodologies, and predictive range modeling. Dr. Master recently served on The Heinz Center committee for freshwater indicators. Dr. Master received his Ph.D. in Zoology from the University of Michigan. At present, he reports no funding outside of his employment with NatureServe.

Judy L. Meyer

University of Georgia

Judith L. Meyer holds the tenured position of Distinguished Research Professor of Ecology at the University of Georgia, Athens GA. Her principle research interests are energy and materials flux in aquatic ecosystems, particularly streams; nutrient dynamics in streams; dissolved organic carbon in streams; impacts of riparian management practices on streams; urban streams; impacts of excess sediments in streams; and incorporation of metals into riverine food webs. Dr. Meyer has held numerous leadership positions in her profession. She was President of the Ecological Society of America from 1994-1995, and Vice President from 1991-1992. She has been Director for Science of the River Basin Science and Policy Center at the University of Georgia since 1999; is a Fellow of the American Association for the Advancement of Science. She was the U.S. National Representative to the International Association for Theoretical and Applied Limnology from 1992-2001; served on the Governing Boards of the Council of Scientific Society Presidents from 1994-95; and Water Science and Technology Board, National Academy of Sciences from 1990-1993. Dr. Meyer is the author of over 150 publications on rivers and streams in the peer-reviewed literature. She received her Ph.D. in Ecology from Cornell University l978. Her funding is through two grants from the National Science Foundation; Georgia Department of Natural Resources; EPA/ORD Water and Watersheds STAR grant; and a contract with The Nature Conservancy.

William Mitsch

The Ohio State University

William Mitsch is a Professor in the School of Natural Resources at Ohio State University, and Director of the Olentangy River Wetland Research

Park. Dr. Mitsch's research interests include wetland ecology and biogeochemistry, the creation and restoration of wetlands, ecosystem modeling and wetland management policy. He is extensively published in the peer-reviewed literature and is Editor-in-Chief of the journal Ecological Engineering. Dr. Mitsch received his Ph.D. in Environmental Engineering Sciences (Systems Ecology) from the University of Florida in 1975.

Michael C. Newman

College of William & Mary

Michael Newman is a Professor of Marine Science at the College of William and Mary's School of Marine Science. After his postdoctoral studies, he was a research ecologist at the University of Georgia's Savannah River Ecology laboratory. His research emphasizes quantitative methods in ecotoxicology with topics of interest ranging from chemical measurement statistics to QSAR-like models for predicting metal ion effects to contaminant effects on population genetics to methods of predicting community level effects. He has authored approximately 100 publications on these topics including four books, Quantitative Methods in Aquatic Ecotoxicology, Fundamentals of Ecotoxicology, Population Ecotoxicology and Community Ecotoxicology. He also edited several books, Metal Ecotoxicology, Hierarchical Ecotoxicology, Risk Assessment: Logic and Measurement, Coastal and Estuarine Risk Assessment, and Risk Assessment with Time-to-Event Models. Dr. Newman is active in advisory service. He served on OECD, EPA, DOE, NAS, and State environmental regulatory and risk assessment committees and panels. He was one of two U.S. members of an OECD team charged with assessing statistical methods for analyzing toxicity data. Work with DOE involved complex-wide consideration of data quality objectives for risk assessment activities, and various site-specific advisory services to the Savannah River and Hanford sites. He has been a member of numerous EPA teams including the FIFRA ECOFRAM working group, two FIFRA science advisory panels, the Chesapeake Bay Office science advisory board, a FQPA scientific review board, and a joint U.S. EPA-Israeli Water Agency working group. He has reviewed numerous risk assessment documents or EPA and was a consultant to the NAS (Everglades Ecosystem Assessment). Dr. Newman received degrees in zoology from the University of Connecticut (B.A., M.S.) and environmental sciences from Rutgers University (M.S., Ph.D.). He reports financial support for his research from the U.S. National Science Foundation Coastal Ocean Science Education Excellence Funding; The U.K. Department of Environment, Food & Rural Affairs; the U.S. Fish and Wildlife Service; and DuPont.

Charles A. Pittinger

The Cadmus Group Inc.

Charles Pittinger is an environmental toxicologist and policy analyst with the Cadmus Group. Fall 2002 he established Cadmus' Cincinnati offices, focusing on product stewardship and the integration of hazard and risk tools

for effective risk management. Previously, Dr. Pittinger worked as Director of Research for SoBran, Inc., where his duties included supervising research contracts at three EPA research facilities. For 17 years, Dr. Pittinger worked for The Procter & Gamble Company, principally in environmental risk assessment and management. He has published over 40 scientific articles, book chapters and editorials on subjects including: regulatory and science policy; peer review; ecological risk assessment and management of consumer product chemicals; risk communications; life cycle analysis; sustainability; ecological assessment; environmental mutagenesis; environmental chemistry; aquatic toxicology; and sediment contamination. Dr. Pittinger has served in numerous leadership roles in both the public and private sectors. He was elected to the Society for Environmental Toxicology and Chemistry Board of Directors, served as SETAC's first Congressional Science Fellow with the U.S. House of Representatives Science Committee in 1993-94, and was awarded SETAC's Exceptional Service Award in November 2000. He initiated SETAC's Peer Review Subcommittee and Technical Issue Paper on "Sound Science". He chaired the American Industrial Health Council's Ecological Risk Assessment Committee for 5 years. He has served on the OECD's Risk Assessment Advisory Board, the American Chemistry Council's Ecological Risk and Life-Cycle Analysis Committees; and ASTM Subcommittee E-47. He received his Ph.D. in Zoology from Virginia Polytechnic. The Cadmus group derives its funding from a 3:1 ratio of public to private contractual arrangements.